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ABSTRACT

In the proliferation of articles about using computers in the composition classroom published in the last five or ten years, few mention anything about preparing students to compose on a computer while all assert that computers do indeed help the composing process. Preparing students to compose on a computer involves three major processes: instruction, documentation, and consulting. The goal of instruction is threefold. First, it is necessary to remind students that the computer will be a tool with which to write in the same way that a pen and paper are tools. Second, writers must know the computer keyboard to get the maximum benefit from the program they are using. And third, they need a thorough introduction to the software they will be using. A necessary reinforcement for even the most effective instruction is documentation such as handouts, newsletters, and online help programs. Finally, instructors should learn and tell their students about the types of consulting that are available through their department and through the school's computing services. For a computer to be a composing tool as well as a typewriter, instructors must prepare their students to use it. (SRT)

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Preparing Students to Compose on a Computer

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In a recent article describing an advanced course in business and technical writing, two colleagues of mine in Delaware's English Department had this to say about students using computers in the course:

> An assumption of this course is that all students will write all their assignments on a computer. No specific class time is devoted to how to use the computer. Some students are already proficient. Those who aren't attend a special session of instruction provided by the university's academic computing services.

The authors of this article had a great idea--have all of their students write on a computer to, as they say, "ease the burden of producing and revising copy," make document design decisions, and learn to work interactively with team members in a simulated office atmosphere. The fact that they made no provision for teaching their students how to use the computer showed that they were very naive in the responsibility such a decision entailed. In fact, in the proliferation of articles about using computers in the composition classroomthat have been published in the last five or ten years, few mention anything about preparing students to compose on a computer while all assert that computers do indeed help the composing process.

Instructors who want their students to use a computer for

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classwork, who want the computer to be more than a glorified typewriter, and who want the computer to aid in the development of their students' writing have the responsibility of acquainting these students with the tools they'll be using. Assuming that students will learn to use a computer on their own (for word processing, at least; games are another story) is like assuming that they will learn how to use commas and semicolons on their own or will discover the wealth of information in the library's reference room by themselves. Most of us wouldn't attempt to teach composition without at least reviewing grammar, and many of us schedule library orientation sessions for our composition students; if we use a computer in the course, we should also schedule computer orientation sessions.

Preparing students to compose on a computer involves three major processes: instruction, documentation, and consulting. Each of these must be made available to students for them to compose on a computer effectively and efficiently. Knowledgeable and practical instruction is by far the most important objective; documentation and consulting will enhance good instruction.

The goal of instruction is threefold. First, it is necessary to remind students that the computer will be a tool with which to write in the same way that a pen and paper are tools. It is not merely a cosmetic panacea to make their essays more readable for the instructor. The important point is to maximize the students' sense of control.

One way this is possible is to familiarize students with the

hardware they'll be using. If, for example, they are using a mainframe computer, do they know that they actually work at computer terminals, not at a computer? Do they know where the mainframe computer and the printers are located? Do they know how to turn the terminal on? Or configure it to communicate with the mainframe? Or if they're working on microcomputers, do they know what kind they're using, how the disk drives work, what a mouse does, how to care for and insert a diskette? These things may not be directly involved in text or word processing, but they all give students a necessary awareness of their tools and how to control them. Too often, students are given only bits and pieces of information about the computers and the operating system, and they cannot put these bits and pieces of information together for a view of the whole system and what working on it involves. A student's first experience on a computer is crucial to his or her attitude towards using it in future classes.

An even more important aspect of hardware familiarity is the keyboard. While most will have some knowledge of the standard typewriter part of the keyboard, they should also know how and why to use the special keys found on terminal and microcomputer keyboards. For example, Zenith 29 terminals have keys marked F1 through F10 and another key marked ESC; Hewlett-Packard 2621 terminals have F1 through F8 keys, others marked ESC, Reset, and Break, and a mysterious unlabelled grey key on the right side; IBM PCs have three-part keyboards consisting of function keys, a typewriter keyboard, and a numeric keypad along with keys marked

ESC, ALT, CTRL, DEL, and INS and keys with a variety of arrows; and Macintoshes have an Option key and another key with a funny-looking squiggle that we discover elsewhere is called the Command key.

Writers must know the computer keyboard to get the maximum benefit from the program they are using, and the best way to learn about it is through hands-on instruction. I consult at one of our microcomputing sites for 5 hours a week, and too often I see students who have turned simple problems into complex ones just by pressing the wrong keys and other students who spend hours doing simple tasks they might otherwise avoid because they're not acquainted with their keyboards.

The most important goal of instruction, however, is a thorough introduction to the software students will be using. And I stress thorough. It's one thing to show students how to create a file using a mainframe text editor and then correct a few typos or how to access a microcomputer word processing program, type text, and then correct a couple mistakes. But students can do this much with a typewriter and a bottle of white-out.

One of the greatest benefits of composing on a computer, as almost everyone will agree, is the ease of revision it presents. Stephen Marcus, Assistant Director of the South Coast Writing Project at the University of California, Santa Barbara, for example, has pointed out, "for many students, seeing words dance around a screen . . . generates quite a different sense of risk

involved in committing themselves to writing."

In fact, ease and importance of revision are obvious even to non-English instructors. "Instead of punishing revision," Bryan Pfaffenberger, a Professor of Cultural Anthropology, tells students in his book Macintosh for College Students, "a computer with word processing software makes it easy. When you're writing with a word processing program, what you've written isn't irrevocably stamped on paper; it's present in the lightning-fast electronic pathways of your computer's random access memory, where you can easily and rapidly alter it until you're satisfied it says what you want. Writing with word processing software gives you every incentive, in short, to practice writing: to experiment, to revise, to restructure, and to reorganize. That's just what you need to grow as a writer."

But for students actually to be able to write and revise as easily, quickly, and effectively as everyone points out, they must know more than how to type text and correct typos. How do you delete whole sentences or paragraphs? How do you move whole sentences or paragraphs? How do you search for a word? How do you search for and replace a word? Is there an undo function? As Helen J. Schwartz writes in an article called "Teaching Writing with Computer Aids," "It makes sense to plan time in a writing class for revision. The . . . problem is that students don't usually know how to revise and don't want to do so unless forced. [But] show them an essay written with a word processor. Move the last paragraph to the beginning and print it out.

Students immediately realize the power of this facility. Suddenly writing becomes a playground where revising is part of the fun instead of part of the punishment." Words on a CRT screen do seem less permanent and more fluid than words on a piece of paper. Knowing techniques to manipulate words, sentences, and paragraphs may actually tempt students to juggle text to test for organization and effect.

Instruction, then, must cover a lot of ground to familiarize students with all they should know in order to take the greatest advantage of the computer while composing. And usually one class period just isn't enough time to accomplish all of this. One of the classes I teach, for example, is a mini-introduction to WordPerfect especially designed for instructors who are willing to devote one class period (but no more) to computer instruction. Actually, it's an information packed show-and-tell-and-hands-on period with a brief introduction to the microcomputer hardware the students will be using, diskette care, DOS filenames, accessing WordPerfect, moving the cursor, entering text, inserting and deleting text, underlining and bolding text, and saving, exiting, retrieving, and printing a file. That's a lot of information--especially considering that our regular WordPerfect introductions last three hours, and we also offer a three-hour More About WordPerfect seminar. And there's certainly not enough time to demonstrate moving text and other techniques that would aid revision rather than composition.

Introductions to a mainframe computer fit into a single

class period even less easily because mainframe text editors are more complicated to use and mainframe software--unlike most microcomputer word processing software--is not WYSIWYG (What you see is what you get), so time must be devoted to text formatting programs as well as to text editors.

Some instructors, of course, object that most college students have already been introduced to computers in high school or at home. But even if this is true, often this exposure has been to a computer other than the kind being used in class, especially if it's a mainframe computer. Just the other day, for example, a student at one of our microcomputing sites was having a lot of difficulty, and he told me how upset he was that his instructor was making him learn (on his own) and use WordPerfect on an IBM PC even though he already knew how to use a Macintosh and had one at home. Lack of instruction or lack of enough instruction may cause students to become frustrated and focus more energy than necessary on mechanical actions like typing text and printing out a final copy of a paper to hand in and less energy on composing, editing, and revising their essays. Thus, instructors unwilling to give too much class time to the computer may find it usurping valuable student energy just in the physical preparation of the paper.

Other useful tools for students lucky enough to get more than one class period of computer instruction are spelling and style programs like Writer's Workbench, which runs on our UNIX system; WordPerfect Speller, Right-Writer, PC-Style, and

Grammatik on the IBM-PC and compatible microcomputers; and MacSpell on the Macintosh. Spelling programs are nothing more than electronic dictionaries. They do not automatically correct bad spelling as some instructors fear. Instead, they flag possibly misspelled words; students must still be able to correct those that are actually misspelled. And while there are varying degrees of endorsement for style programs, they do give students immediate feedback, what William Wresch calls "a continuous audience," and used in conjunction with class instruction, may actually make students think more about their writing and the writing process.

The most important point that I want to make about instruction, however, is that instructors who require their students to compose on a computer must themselves be thoroughly familiar with both the hardware and software. Too often I've heard of instructors requiring computer use in their classes when they have never even used one themselves. How can these instructors know the possibilities, the potentials, or the problems of the hardware and software they've assigned?

Instructors should know the hardware and software well enough that they themselves could teach their students how to use it if necessary. If they do, they will have a better idea of the type of work their students should be doing on the computer. If they don't, they cannot judge very effectively how well a student is using a computer or suggest ways that he or she may use it more productively. Instructors should also be able to answer

questions about the computer hardware and software they assign, just as they answer questions about the reading and writing they assign. In many schools, like the University of Delaware, academic computing professionals are available to teach introductory computing courses upon request, so instructors do not have to teach the computing component of their composition class. But they should be ready to help if review is needed.

A necessary reinforcement for even the most effective instruction is documentation. Just as when I used to teach English, when I teach any type of computer class--text processing on a mainframe computer, WordPerfect on an IBM PC, or Introduction to the Macintosh, for example--I make sure that I have clear, accurate handouts for my students to use in class for notes and, more importantly, after class for reference.

Instructors should find out what kinds of documentation are available from the computing center at their school both for themselves and so they can inform their students. For example, Academic Computing Services at Delaware distributes hands-on documents designed both for those who cannot make it to a class and for those who want additional practice. A monthly newsletter keeps our academic community up to date with the latest programs available, possible problems with programs, and computing hints, as well as descriptions and schedules of all the user education classes we offer. In addition, we publish Technical Memoranda, Program Documents, and Microcomputing Memoranda. We also have on-line help programs on our mainframe computers and special

introductory video cassettes and help programs for microcomputer users. And all of these items are available to faculty, staff, and students free of charge.

If instructors make up their own handouts, it's usually a good idea to have someone else review them who is familiar with the computer and program(s) being used. Often a computing center staff member will be glad to do this. Too often we've had confused students in our consulting rooms because their instructors left out one important step in a set of instructions, provided obsolete or erroneous information, or simply made a typo. Our documents go through three different reviews and are read by at least nine people before they're published. Computing center staff members use programs and write computer documentation for a living, so they have the experience to spot inaccuracies or possible problems in handouts. Having someone else review a document may turn a potentially useful document into a valuable reference tool for students.

Finally, instructors should learn about and tell their students about the types of consulting that are available through their department and through the school's computing services. Although you should be able to answer many of your students' computing questions, you cannot devote more time to that than to your English preparation and "consulting." A computing consultant can often solve a student's (or instructor's) seemingly insurmountable problem in a few minutes. Besides, some students feel uncomfortable about asking their teacher for help

while they may admit their computing problems to a computing consultant who doesn't know them. Anything that will lessen the possible frustration of working on a computer will aid students in using it to their advantage.

In sum, instructors should learn about all of the computing resources that are available to them and their students and take advantage of these resources. I firmly believe in the value of the computer in the composition classroom, but for it to be a composing tool as well as a typewriter, instructors must prepare their students to use it. Taking the time to show students the range of computing power available to them is an investment that will repay instructors and students rich dividends.